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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,217

06/04/2007

Paivi Maatta

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6692

2292 7590 01/05/2011  
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EXAMINER

MCNALLY, DANIEL

ART UNIT

PAPER NUMBER

1747

NOTIFICATION DATE

DELIVERY MODE

01/05/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,217	<b>Applicant(s)</b> MAATTA ET AL.	
	<b>Examiner</b> DANIEL MCNALLY	<b>Art Unit</b> 1747	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) 3,5-7,9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,8, 11-14 and 16-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/28/2010, 12/14/2010</u>                                     | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 17, 18 and 19 recite "the laser source of the laser" which is vague and unclear. It is recommended revising the language to read --the laser source of the laser beam--.

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 2, 4, 8, 12-14 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kammler [DE19516726, of record, previously cited] in view of Dries et al. [US2003/0003296, of record, previously cited, "Dries"] for the same reasons expressed in paragraph 6 of the Office action mailed 7/9/2010.

With respect to claim to claims 16-19, Dries discloses suitable lasers include Nd:YAG and diode lasers (paragraph 0084).

### ***Response to Arguments***

5. Applicant's arguments filed 10/12/2010 have been fully considered but they are not persuasive. Applicant asserts Kammler teaches away from the claimed invention

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because Kammler teaches the material to be sealed can be a polyethylene coated board, the absorbed energy is kept low enough to avoid the risk of burning, and the radiation intensity is to be increased. None of these teachings of Kammler teach away from the claimed invention, therefore the argument is not persuasive. Applicant cites an article "*Laser Cutting of Pigment Coated Boards*," to support the point that CO2 lasers produce laser beams that are absorbed by paper or board layer. This argument does not provide any support that Kammler teaches away from the claimed invention.

Furthermore, the following references are not relied upon in the rejection but cited to show that the applicant's laser sources (diode lasers and Nd:YAG lasers) also can produce a laser beam that is absorbed by paper to burn or cut the paper. Ang et al. [US4537809] teaches Nd-YAG lasers are useful for cutting paper backing material (column 3, lines 52-68; column 7, lines 36-51). Hull et al. [US5192559] teaches diode Nd:YAG lasers are suitable for material such as paper sheets (column 9, lines 24-56).

Applicant argues Dries does not relate to fibrous paper or board materials.

Applicant asserts Dries teaches away from bonding paper or board materials with the disclosed lasers because Dries discloses the laser passes through the base layers. Kammler teaches a laser welding process where a laser beam is transmitted through a paperboard material to a radiation absorbing substance in the weld region to heat the weld region. Dries teaches suitable laser sources for laser beams that are known to weld packaging materials. Dries does not teach away from any aspects of the claimed invention. Applicant asserts without any support that a skilled person would understand it is prerequisite for successful use of the bonding technique of Dries that the laser

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beam is not absorbed by the base laser and passes through the other layers unhindered. Dries discloses that suitable laser sources that produce laser beams that are absorbed by pigments in the material to be welded. Kammler teaches the laser is transmitted through a paper layer so it can be absorbed by a laser absorbing material to form a weld.

Applicant asserts there is not a reasonable expectation of success. Kammler discloses a successful weld can be formed by irradiating a laser beam through a paperboard, and Dries teaches suitable laser sources for producing a laser beam. One in view of Kammler and Dries would expect a laser beam that is produced by Dries source would perform in the manner disclosed by Kammler. Applicant has not provided any evidence that one would not expect the laser beam from the sources of Dries to perform in the manner disclosed by Kammler.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL MCNALLY whose telephone number is (571)272-2685. The examiner can normally be reached on Monday - Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel McNally/  
Examiner, Art Unit 1747

DPM  
December 17, 2010

/Richard Crispino/  
Supervisory Patent Examiner, Art Unit 1747